

Notice of Allowability

Application No.

09/865,137

Applicant(s)

WERNET ET AL.

Examiner

Anand Bhatnagar

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/12/04.
2. ☒ The allowed claim(s) is/are 2-7 and 10-19.
3. ☒ The drawings filed on 05/24/01 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Response to Arguments

1. Applicant's amendment filed on 07/12/04 has been entered and made of record.
2. Applicant has canceled claims 1, 8, and 9. Claims 2-4, 7, 10, and 13 have been amended. Currently claims 2-7 and 10-19 are pending. Examiner refers to the action below.

Allowable Subject Matter

3. Claims 2-7 and 10-19 are allowed.
4. The following is an examiner's statement of reasons for allowance: the prior art does not anticipate, nor does it suggest, the combination as now claimed in the claims. Specifically claims 7, 13, and 19 recite a combination of elements, including specifics of "a processor for determining a size of the particle as a function of a separation between spots identified on the padicle, determining a velocity of the particle, and determining the mass flux of the particle as a function of the size and velocity, wherein the spots are glare spots and the separation between the glare spots is determined as:

$$x_{\text{sub } 0} = -aM \cos(\theta_{\text{sub } 0/2});$$

$$x_{\text{sub } 1} = n a M \sin(\theta_{\text{sub } 0/2}) \left[(n^2 + 1 - 2n \cos(\theta_{\text{sub } 0/2}))^{1/2} \right]; \text{ and}$$

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$$d_{\text{sub } p} = \frac{(2 \Delta (\epsilon_{\text{sub } p}))}{\left[\left| -M \cos (\theta_{\text{sub } o}/2) \right| + \left[\left| (n M \sin (\theta_{\text{sub } o}/2)) / (n + 1 - 2n \cos (\theta_{\text{sub } o}/2)) \right|^{1/2} \right] \right]},$$

where $d_{\text{sub } p}$ is an estimate of the particle diameter, n is a ratio of an index of refraction of a material of the particle to an index of refraction of a medium, a is a radius of the particle, M is an optical system magnification, Δ is a number of pixels separating the glare spots on a surface of a CCD, $\epsilon_{\text{sub } p}$ is a size of the pixels in the CCD, and $\theta_{\text{sub } o}$ is an observation angle," that, in combination with the other claim limitations.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (703) 306-5914, whose supervisor is Amelia Au whose number is 703-308-6604,

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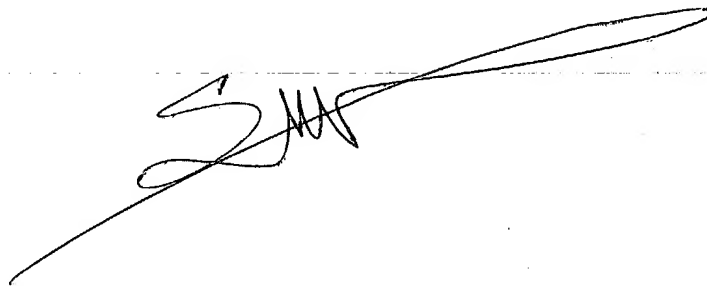
group fax is 703-872-9306, and Tech center 2600 customer service office
number is 703-306-0377.

AB

Anand Bhatnagar

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November 28, 2004

A handwritten signature in black ink, appearing to read 'SAMIR AHMED', written over a horizontal dashed line.

SAMIR AHMED
PRIMARY EXAMINER